

CHANDLER AIRPARK Area Plan

Airpark Area Plan

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BRW

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4.0 INFRASTRUCTURE ELEMENT

4.0 Infrastructure Element

The Infrastructure Element of the Chandler Airpark Area Plan is presented in the following sections:

- 4.1 Introduction
- 4.2 Existing Setting
- 4.3 Infrastructure Vision, Goals and Policies
- 4.4 Infrastructure Plan
- 4.5 Infrastructure Implementation Program

4.1 Introduction

The importance of providing basic public infrastructure to manage community growth and implementation of the Land Use Element cannot be overstressed. Without water for industrial and domestic use, provisions for the removal of waste, electricity and natural gas, the development of otherwise usable land becomes a complex problem. Through development of an efficient infrastructure network, growth and development can be stimulated in targeted regions of the Airpark Area. Conversely, if the infrastructure network is built for over-capacity or is inappropriately located, infrastructure development can lead to wasteful expenditure of public funds.

The Infrastructure Element identifies a recommended public utilities improvement plan to provide adequate levels of service to the Airpark Area through the year 2020. It is designed to compliment and promote orderly development in accordance with the Land Use Plan. The need for balanced and managed growth of the area requires the infrastructure to develop in response to projected community need and in accordance with established timeframes.

The Infrastructure Element is a guide to decision making for the Airpark Area that achieves the following:

- Identify the utility improvements necessary to accomplish buildout of the Airpark Area Plan.
- Identify implementation measures that will facilitate utility development and improvement.
- Identify a prioritized timeframe for infrastructure project implementation.

4.2 Existing Setting

The City is in the process of upgrading infrastructure facilities in anticipation of development. A majority of existing trunk utilities extend along Arizona Avenue, with branch lines and support facilities distributed throughout the Airpark Area. Due to a largely rural land use pattern in the Airpark Area, the demand for an extensive utility network has been historically absent. As low intensity developments are replaced with urban development, the City has enacted a series of utility improvement programs that will bring conventional City services to the region. Private and quasi-public utility providers are also extending existing services to the area in response to growth.

Public Facilities

A series of parks and open spaces is planned for the Airpark Area, including Tumbleweed Regional Park, with 160 acres available for recreation. Over \$3.28 million is committed to regional parks in the next two years in the City of Chandler 1998 CIP Budget. The Paseo System of pedestrian and bicycle trails, along the Consolidated Canal corridor, has over \$1.5 million committed for implementation through 2003.

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A Water Treatment Facility is located south of Pecos Road between McQueen and Cooper Roads. The facility is the source of potable municipal water for residences and businesses in the Airpark Area. The facility was commissioned in 1989 and currently purchases water from the Salt River Project (SRP). The site processes a maximum of 45 million gallons per day (mgd).

Sewer infrastructure exists along the western side of the Airpark Area along Arizona Avenue. Easements for sewer lines are preserved within the Rights-of-way of all major and minor arterials. The City of Chandler is currently expanding its sanitary sewer processing infrastructure to include a new sewage treatment plant. This facility is under construction at the southwest corner of Queen Creek and McQueen Roads and will service the region by 1999. Funding comes from general obligation bonds and \$14.6 million has been set aside through 2003 for this project.

The Municipal Landfill is located on the northwest corner of McQueen Road and Ocotillo Road. The landfill began operation in 1981 and is projected to reach capacity by 2005, when the landfill is expected to close. The site accepts approximately 277 tons of non-reusable refuse per day and does not accept hazardous and industrial wastes. The City has budgeted nearly \$1.2 million over the next two years to prepare the landfill for closure. After closure, the site is expected to be developed as an open space area after meeting all environmental mediation criteria for landfill closure. A solid waste transfer station is currently being developed to the north of the landfill site on the southwest corner of Queen Creek and McQueen Roads. The transfer station will accept City waste and transfer that waste to other landfills outside of the City boundaries once the current landfill site is closed.

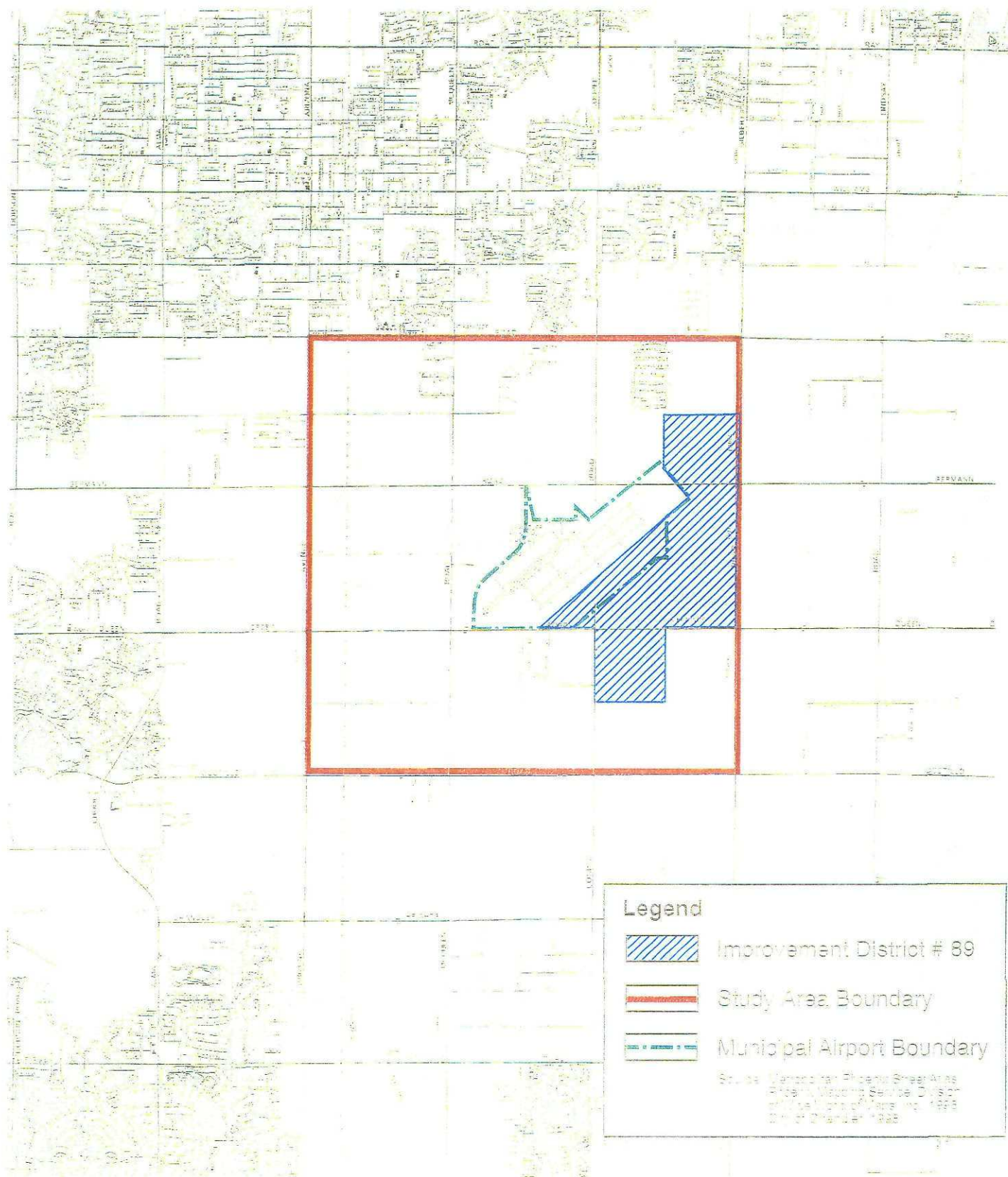
Electrical service is provided to the Airpark Area by the Salt River Project (SRP). A majority of the area's electrical service enters the Airpark Area through an existing above-ground high-voltage power line. This line runs north to south along the Southern Pacific Railroad corridor. SRP recently constructed a new 230 KV line along Ocotillo Road between McQueen and Cooper Roads, which extends from a substation located south of the Airpark Area at Ocotillo Road and Arizona Avenue.

Southwestern Gas Corporation provides natural gas service within the Airpark Area. Below-grade infrastructure is currently in place for a majority of the Airpark Area, with rights-of-way running parallel along major arterial roads. A 6-inch steel gas line runs along Germann Road and serving a majority of the natural gas needs throughout the area.

Cox Communications provides cable services to the Airpark Area and US West provides local telephone service. Infrastructure for these two utilities is typically put in place as growth and development occurs.

Improvement District #89

In addition to existing infrastructure, the City of Chandler has formed an improvement district with area property owners. Figure 4-1, *Improvement District #89*, shows the boundaries of the Improvement District where infrastructure improvements are currently underway. These improvements include construction of new collector and minor arterial streets (134th Street and Ryan Road); water line improvement, varying between 8-inch and 16-inch pipes (along Cooper Road, Gilbert Road, Queen Creek Road, 134th Street and Ryan Road); and wastewater improvements, varying between 8-inch and 39-inch pipes (along Cooper Road, Gilbert Road, Queen Creek Road, 134th Street and Ryan Road).



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Refer to *Improvement District #89 – Preliminary Plans*, dated January 1997 for further detail.

4.3 Infrastructure Vision, Goals and Policies

Vision

Development of a comprehensive infrastructure system that is efficient and designed to accommodate future growth and broaden economic development potential in the Airpark Area.

General Infrastructure Development

Goal 1.0 To maintain, improve, and construct public infrastructure facilities to adequately serve the Airpark Area.

Policy 1.1 The City shall require developers to grant easements for utility placement during construction.

Policy 1.2 The City shall require developers to install water and sewer infrastructure necessary to serve their projects.

Policy 1.3 The City shall require a logical phasing of infrastructure improvements with road construction projects.

Policy 1.4 The City shall ensure that new infrastructure improvements emphasize the conservation and efficient use of water resources.

Policy 1.5 The City shall designate appropriate sites for wells and water storage tanks within the Airpark Area.

Infrastructure Finance

Goal 2.0 To ensure development absorbs the costs of infrastructure improvements and construction.

Policy 2.1 The City shall continue to create improvement districts, as required by developers, to finance needed infrastructure improvements for water, sewer and roadways.

Policy 2.2 The City shall charge appropriate impact fees to cover the cost of new infrastructure and public facilities.

Utilities

Goal 3.0 To ensure the residents and businesses of the Airpark Area have access to utilities.

Policy 3.1 The City shall work with Southwest Gas and Salt River Project to ensure timely installation of utilities and upgrades prior to development.

Policy 3.2 The City shall work with U.S. West and Cox Communications to ensure timely installation of utilities, fiber-optic conduit and upgrades during development.

4.4 Infrastructure Plan

This section details the improvements currently planned by the City of Chandler for the Airpark Area and any improvements to the surrounding area that would impact the infrastructure of the Airpark Area. These projects are funded from fiscal year 1998 to 2003 and are outlined in detail in the City's Capital Improvements Program.

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Telecommunications

A Fiber Optic Duct Bank is planned for an alignment along McQueen Road with extensions to the Airport and Water Reclamation Plant. This will connect the Downtown Campus of city facilities with city facilities existing and expanding to the south in the Airpark Area. Total cost of the project will be \$575,000.

Parks and Trails

As part of an ongoing need to develop one ten-acre neighborhood park per 640 acres (1 section), the City of Chandler will spend \$3.6 million to acquire park sites. A portion of this money will be spent to identify sites in the southern part of the Airpark Area. In addition, the City has earmarked \$4.74 million for the continued development of Tumbleweed Regional Park to include an amphitheater, festival showgrounds and half-street improvements. The City will spend \$1.2 million for the preliminary construction of six miles of the Paseo System, including the 3.25 miles that run through the Airpark Area. Improvements include updating the Master Plan and constructing six miles of pedestrian trails.

Public Safety

The City of Chandler will spend \$240,000 to purchase land for the future site of Fire Station #6. The location of the fire station will be south of Pecos Road and east of Arizona Avenue. The City will construct the fire station when call response times begin to exceed 4 minutes. This construction is expected within the next five years and \$2 million has been set aside in the form of general obligation bonds for this project.

Transportation Projects

The City of Chandler plans to update the Transportation Element of the Chandler General Plan to include the newly updated Transportation and Circulation Element and Airpark Area Plan. Information from this update will be used to evaluate construction priorities and reassess the City's Street Impact Fees.

Solid Waste

The City of Chandler has decided to close its municipal landfill as it is nearing capacity. It will be closed in accordance with EPA guidelines and landscaped into a park or open space. The City will spend a total of \$3.4 million over the next five years to close the landfill and construct erosion control and landscaping. In response to the closing of the Municipal Landfill, Chandler will construct a new Solid Waste Transfer Station/Recycling Facility at a total cost of \$4.48 million. The new Transfer Station will be constructed at the site of the Wastewater Treatment Plant, just north of the closing landfill.

Water

Chandler will spend \$5.05 million to remediate and re-drill several wells within the City Limits over the next five years. One of these wells is the Re-De well site located northwest of Ocotillo and Cooper Roads. This well is being re-drilled to a larger diameter to improve its capacity to deliver water by 90 percent. The City will be replacing fire hydrants at Pecos and McQueen Roads during fiscal year 1998-1999 as part of a total program of \$1.25 million to upgrade and replace old fireplugs. A 24-inch

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water transmission line will be constructed along McQueen Road, between Queen Creek and Ocotillo Roads, during the next five years, at a cost of \$5.6 million. This transmission line will service the future needs of residential and commercial growth in the Airpark Area. The City will also expand the Water Treatment Plant Facility to a minimum of 3,500 square feet at a cost of \$702,000. A sedimentation basin located at the Water Treatment Plant will be improved at a cost of \$610,000. In addition to upgrading the Water Treatment Plant, a \$1.57 million program will be implemented to inspect water reservoir and storage tanks to ensure compliance with Maricopa County Health Standards. The City will also spend \$1.83 million to acquire land for additional storage tank and reservoir sites.

Wastewater

The City of Chandler has programmed \$20.2 million for a major Water Reclamation Facility at the Municipal Airport or Ocotillo Facilities. Both of these facilities will service the Airpark Area and are expected to provide adequate service as growth continues. If it is determined that a new plant is needed, versus an expansion of an existing facility, the City may need to pursue additional monies for construction. Effluent reuse and recycling is a major component of the wastewater plan for this area.

Maintenance Yard

An expansion of the maintenance yard located in the Airpark Area will be completed in 2003. Storage space, office space and maintenance facilities will be expanded to handle the increased growth occurring in the area. The total cost of this program will be \$1.73 million.

Dry Utilities

With the recent installation of the 230 KV corridor in the Airpark Area, SRP has completed their improvement plans for the area. The transmission facility at the Arizona Avenue and Ocotillo Road intersection will step down the voltage to 69 KV and is considered to be of adequate capacity to service the Airpark Area at buildout.

Improvement District #89

As previously mentioned, the City of Chandler has formed an improvement district with area property owners. Improvements include construction of new collector and minor arterial streets, water line improvement, and sewer improvements.

Airport

The City of Chandler is in the midst of an aggressive development program for the Chandler Municipal Airport. Between 1998 and 2003, the City will spend \$13.3 million to upgrade and improve Airport Facilities. Activities will include: runway/taxiway pavement preservation, installation of a new storm drain, construction of the new access road along the north end of the Airport, land acquisition to lengthen the runways and preserve runway safety zones, and a few miscellaneous improvements to runway lighting and security measures.

4.5 Infrastructure Implementation Program

A series of implementation measures have been established for the infrastructure of the Airpark Area, as shown on Table 4.1, *Public Infrastructure Implementation Program*. These

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measures will serve as a tool in the recommendation of improvements to existing public services. These recommendations will provide the City Council with public utility improvement priorities as defined here and within the Capital Improvements Program, FY 1998-2003.

The implementation program lists the specific implementation measure, the purpose, timeframe, key participants, project location and the resources necessary to accomplish each implementation measure.

Definitions:

- *Implementation Measure* - Lists the action necessary to carry out the Infrastructure Element of the Chandler Airpark Area Plan.
- *Purpose* - Identifies the intent of accomplishing that particular action
- *Timeframe* - Establishes the target 5-year priority within the 20-year planning horizon for implementation of the action.
- *Key Participants* - Assigns the elected or appointed public body, agency, group, individuals or volunteers principally responsible to initiate the implementation action.
- *Resources* - Lists the potential funding, City staff, volunteer or other community resources necessary to carry out the implementation action.

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Table 4.1
Public Infrastructure Implementation Program

Implementation Measure Action	Purpose	Timeframe (Years)				Key Participants	Resources
		1-2	3-5	5-10	10-20		
Update the Capital Improvements Program to reflect the Airpark Area Plan	To encourage proper phasing and adequate facilities for Economic Development.	•	•	•	•	Public Works, City Council	Public Works
Work with Utility Companies to coordinate expansion of Utility Systems during construction projects	To encourage proper phasing and adequate facilities for Businesses.	•	•	•	•	Utility Companies, City Planning Staff and Public Works	Right-of-way and easement controls
Create Improvement Districts	To pay for the costs of expanding infrastructure during development.	•	•	•	•	Property Owners, Public Works, City Council	Developer Bonds
Work with ADOT to move up completion of the San Tan Freeway	To adequately serve the transportation needs of the Airpark Area.	•	•			ADOT, City Public Works, City Council	Municipal Bonds as loans to ADOT.

Source: BRW, Inc., 1998